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ABSTRACT

Mood induction procedures have been widely used as laboratory analogues of depression. This study evaluated the effectiveness of the Velten depression mood induction (VMI) procedure and a personal recall depression induction (PRI) procedure. In contrast to prior research, mood was assessed in terms of two independent dimensions: positive affect and negative affect. College students (N=31) were assigned to one of two groups. Group I completed the VMI and then, one week later, completed the PRI. Subjects in Group II participated in the PRI first and the VMI one week later. Subjects completed the Mood Checklist and were assessed at three points (preinduction, immediately postinduction, and one hour after induction). Analyses showed that both mood induction procedures were equally effective. Significant differences were found, however, for the two affect dimensions with positive affect more reactive than negative affect at the immediate posttest and one hour posttest assessments. These results clearly support the importance of the positive affect dimension in the study of depression. (Author/NB)

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Depressive Mood Induction:

The Reactivity of Positive Affect

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Abstract

Mood induction procedures have been widely used as laboratory analogues of depression. The present study evaluated the effectiveness of the Velten depression mood induction procedure and a personal recall depression induction procedure. In contrast to prior research, mood was assessed in terms of two independent dimensions: positive affect and negative affect. Subjects were assessed at three points, preinduction, immediately post-induction and one hour after induction. Analyses showed that both mood induction procedures were equally effective. Significant differences were found, however, for the two affect dimensions with positive affect more reactive than negative affect at the immediate posttest and one hour posttest assessments. These results clearly support the importance of the positive affect dimension in the study of depression.

Depressive Mood Induction:
The Reactivity of Positive Affect

In a recent review, Goodwin and Williams (1982) concluded that mood induction procedures model depressive states when evaluated with affective and behavioral measures. Their discussion suggests that while mood induction research may be of only limited value in understanding the non-mood components (cognitive, somatic, behavioral) of depression, its usefulness in understanding the affective component of depression is substantial.

One such use of mood induction procedures has been as a laboratory analogue of depression. Following the widely cited work of Velten (1968), who attempted to explore the relationship between cognitions and affective responses, a variety of induction procedures have been used to evaluate different moods and the relationship between mood and other variables (e.g., Atkinson & Polivy, 1976; Coleman, 1975; Hale and Strickland, 1976; Hiroto, 1974; Teasdale & Fogarty, 1979; Williams, 1980).

Despite the widespread use of mood induction procedures, there have been few studies which compare the effects of different techniques. The fact that Goodwin and Williams reported only one study that directly compared mood induction procedures indicates that the differential effects of induction procedures on affective responses has not been well studied. Polivy (1981) has further suggested that the early work with mood

induction procedures was based on overly simplistic and unitary assumptions about the nature of affect. One purpose of the present study is to investigate the differential effectiveness of two widely used mood induction procedures.

Polivy has also noted that previous research has focused, for the most part, on the assessment of the procedure's effect on a number of discrete emotions. The present investigation conceptualizes self-reported transient mood as consisting of two independent dimensions; postive affect and negative affect (Tellegen, 1980; Watson, Clark, & Tellegen, 1984; Zevon & Tellegen, 1982). A number of investigations have indicated that the positive and negative affect dimensions are important and basic dimensions of subjective emotional experience (Andrews & Withey, 1976; Bradburn, 1969; Costa & McCrae, 1980; Watson et al., 1984; Zevon & Tellegen, 1982).

Previous correlational research (Hall, 1977) has indicated that depression is more strongly related to the absence of positive affect than to the presence of negative affect. Another purpose of this study, therefore, is to independently assess the effect of a depressive mood manipulation on positive and negative affect.

Method

Subjects

Subjects (N=31) were graduate and undergraduate students

involved in a longitudinal study of mood and cognition. The subjects included 14 males and 17 females with ages ranging from 21 to 39 years.

Measures

The Mood Checklist (MCL) consisted of sixty adjectives used in a number of prior investigations and selected in order to ensure broad coverage of the domain of affect (Watson, Clark, & Tellegen, 1984; Zevon & Tellegen, 1982). The MCL assesses the two dimensions of positive affect and negative affect. Subjects were instructed to record how they felt at the time they filled out the checklist by endorsing the adjectives on a five-point scale, labeled: "very slightly or not at all," "a little," "moderately," "quite a bit," and "very much." In order to minimize position effects, three forms of the checklist were constructed by randomizing the sequence of adjective presentation. Positive and negative affect scale scores were computed by summing across item endorsements for each dimension.

Design and Procedure

Subjects were randomly assigned to one of two experimental groups. Subjects (n=17) in Group I completed the Velten depression mood induction procedure (VMI; Velten, 1968) and then, one week later, completed the personal recall mood induction (PRI) procedure. Subjects (n=14) in Group II participated in the PRI first and the VMI one week later. Thus, the order of presentation of the mood induction procedures was counterbalanced across the two groups. All subjects individually participated in

2 one-hour experimental sessions. Upon arriving, each subject was led to a room containing the study materials (mood induction materials and a tape recorder with prerecorded standardized instructions).

In the Velten depression induction procedure, subjects read a standardized introduction to the study, then completed Form 1 (Pretest) of the MCL. Subjects were guided via written and tape-recorded instructions through the 60 Velten depression statements. Subjects were instructed to first read the statements silently, then aloud, and to respond to the feeling suggested by the statements. Taped tones, 20 seconds apart, signalled the subject to proceed to the next card. The procedure lasted a total of twenty minutes. Following completion of the VMI procedure, subjects completed Form 2 (posttest) of the MCL.

For the PRI procedure, the induction instructions were identical to the VMI procedure except that the induction task was one in which subjects were instructed to recall a past or current experience. The personal recall induction procedure consisted of a series of 40 stimulus cards which structured the subjects' recall of a prior or current sad event (e.g., "I am thinking of a particularly depressing experience in my recent past. It is...;" "This experience was one that made me sad because ... "). Taped tones, spaced thirty seconds apart, signalled the subject to proceed to the next card. As with the VMI, the total duration of the induction procedure was twenty minutes. Following both procedures, a post-experimental interview was conducted.

Subjects in both induction procedures were also instructed to complete Form 3 of the MCL one hour after their departure from the experimental session, and to return the completed form to the project office.

Results

A multivariate repeated measures analysis with one between-subject factor (order of mood induction procedure) and two within-subject factors (induction procedure and time) was performed on the positive and negative affect scale scores. Results of evaluation of the symmetry conditions — homogeneity of dispersion matrices and sphericity -- were satisfactory for the within and between factors. The MANOVA applied to the repeated measures design showed no significant effect for order of mood induction procedures and type of induction procedure and no significant interaction effects for order (i.e., Order X Procedure X Time, Order X Procedure, Order X Time) on the positive and negative affect dimensions. Nevertheless, the multivariate test for the time effect was significant for positive affect, Averaged $F(2, 62) = 62.90$, $p < .001$, and negative affect, Averaged $F(2, 62) = 23.23$, $p < .001$.

Insert Table 1 and 2 and Figure 1 and 2 About Here

The means and standard deviations for the MCL positive affect and negative affect scale scores by mood induction

procedure and time of assessment are presented in Tables 1 and 2, and plotted in Figures 1 and 2. As shown in Figures 1 and 2, subjects in both procedures showed a highly significant decrease from pretest to posttest on positive affect, F (1, 31) = 83.95, $p < .001$, and a significant increase from pretest to posttest on negative affect, F (1, 31) = 15.00, $p < .001$. Comparison of pretest to one hour posttest yields differing results for positive affect and negative affect. For both procedures, the comparison between pretest to one-hour posttest for negative affect was non-significant, but the same comparison for the positive affect scale scores showed a significant effect, F (1, 31) = 13.43, $p < .001$ for the VMI and for the PRI, F (1, 31) = 12.15, $p < .01$. Positive affect in comparison to negative affect did not return to its pretest baseline. The dimension most reactive to the depression mood induction was positive rather than negative affect.

Discussion

Results of the present study are consistent with prior research which has shown that mood induction procedures have a significant impact on affect. There was no differential impact, however, across the two induction procedures for either the positive or negative affect dimensions.

The striking and significant reactivity of the positive affect dimension to the depressive mood manipulations supports earlier correlational findings (Hall, 1977) that identified an

association between the lack of pleasure (indexed by the absence of positive affect) and depression. The significant reduction of positive affect found on both the immediate posttest and one-hour posttest mood assessments speaks to the relevance of the positive affect dimension to the study of depression within the laboratory setting and the naturalistic environment.

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Table 1

Means and Standard Deviations for Positive Affect by Procedure

PRI Procedure

Pretest		Posttest		One Hour Posttest	
M	SD	M	SD	M	SD
42.29	13.97	23.32	12.14	34.39	13.30

VMI Procedure

Pretest		Posttest		One Hour Posttest	
M	SD	M	SD	M	SD
40.23	13.15	19.68	10.35	34.42	12.40

Note. N = 31

Table 2

Means and Standard Deviations for Negative Affect by Procedure

PRI Procedure

Pretest		Posttest		One Hour Posttest	
M	SD	M	SD	M	SD
29.39	3.18	45.68	19.64	30.19	11.19

VMI Procedure

Pretest		Posttest		One Hour Posttest	
M	SD	M	SD	M	SD
31.23	10.28	41.68	13.27	33.81	12.87

Note. N = 31

Figure Caption

Figure 1. Mean positive and negative affect scores for PRI procedure.

Figure 2. Mean positive and negative affect scores for VMI procedure.

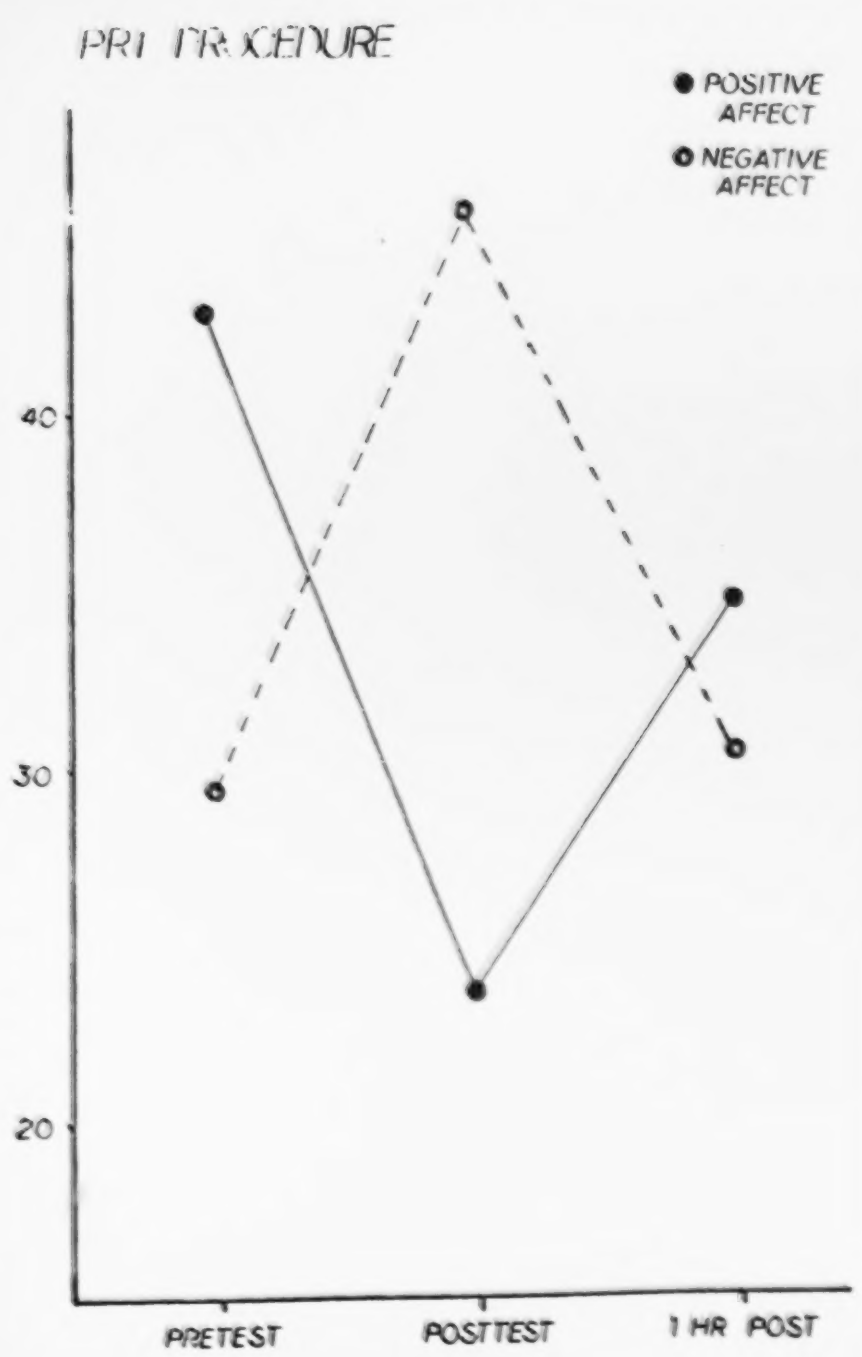

FIGURE 1

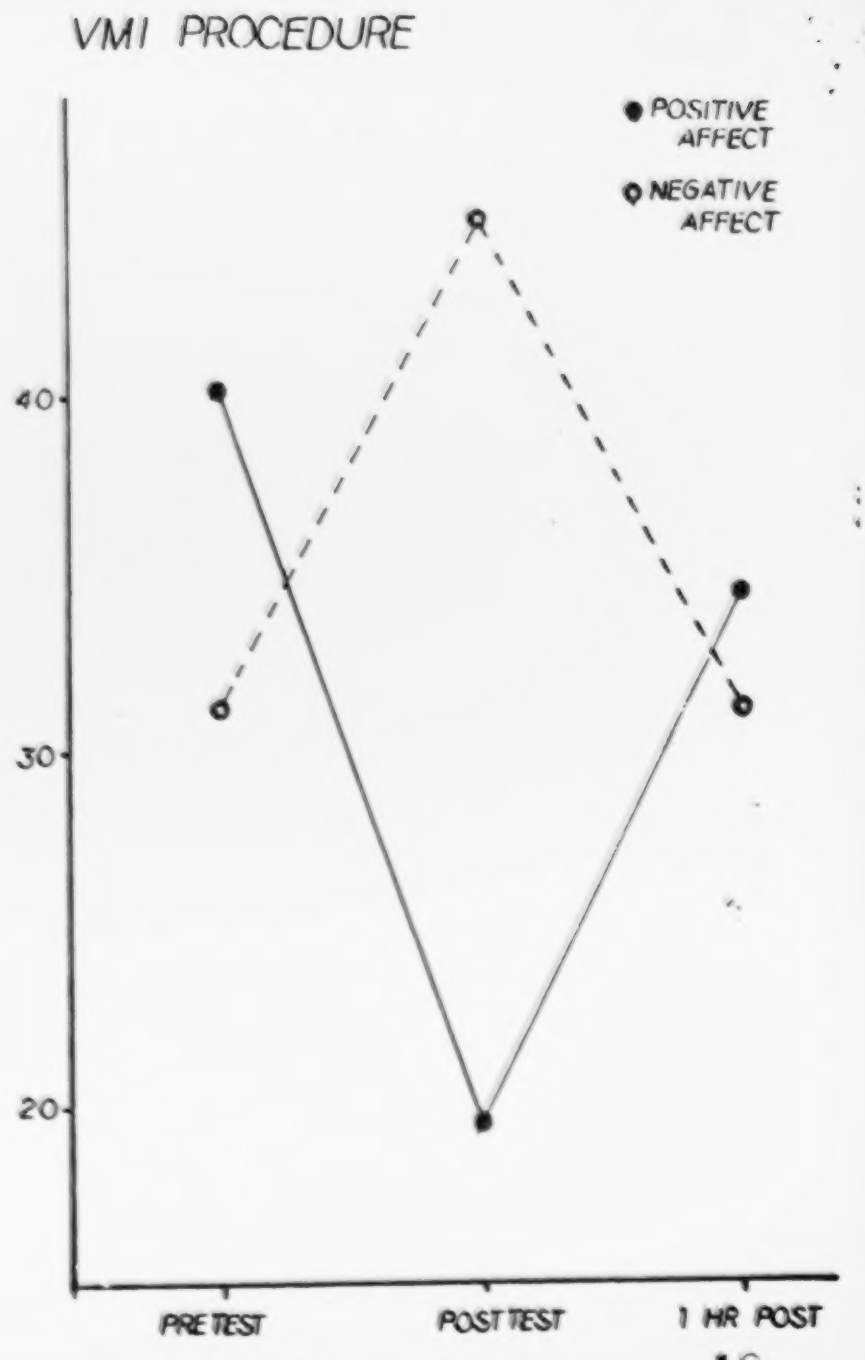

FIGURE 2